

CHAPTER 11

HOLD MANUFACTURING

Why You May Be Wrong About What's Right



One obvious area where climbing and philosophy intersect is with regard to the normative dimension of climbing – the ethical or unethical behavior of climbers. Some of the ethical issues in climbing involve a straightforward extension of more general moral principles. For example, it is wrong to lie about your climbing accomplishments because it is generally wrong to lie about accomplishments; it is wrong to needlessly endanger others at the cliff because, more generally, it is always wrong to needlessly endanger others. However, other ethical

issues involve factors that are unique to climbing and thus cannot be resolved by invoking broader moral rules. Is it wrong to place bolts on rappel? Is it cheating to use pre-placed gear on a traditional pitch? For these sorts of questions, broader moral rules do not apply in any straightforward way, and climbers must work out for themselves what is right or wrong within the context of climbing.

Still, even when the normative question is unique to climbing, broader and basic philosophical considerations have a role to play in figuring out appropriate answers. For activities like climbing, it is possible to tailor a form of *practical* or *applied* ethics. Practical ethics is the search for rational and morally defensible solutions to specific moral dilemmas. Traditionally, these dilemmas have involved important matters like developing biomedical research, new technologies, or areas of concern like global warming. However, a kind of practical ethics can be applied to far less weighty

matters, including recreational activities like rock climbing. While climbers need to decide for themselves many of the rules they ought to abide by, it doesn't follow that anything goes or that a simple majority opinion is decisive. It is certainly possible for climbers, just like anyone else, to embrace rules that are ill-conceived or that, all things considered, don't really make sense. Thus, it is perfectly reasonable to ask if certain long-standing rules or attitudes should be revised or even abandoned; one of the best ways to do so is by adopting the sort of approach used by practical ethicists.

In this essay I am going to try to do something like this with regard to the topic of hold manufacturing or "chipping." In various discussions of this issue we almost exclusively hear (or see) expressions of open hostility toward manufacturing. Yet, despite this widespread criticism, hold manufacturing often occurs during the preparation of new routes, many of which are subsequently described as "classics," even by staunch manufacturing opponents. It would be an understatement to say that climbers are a bit schizophrenic on this issue. By applying some of the same strategies that are common to applied ethics, I'll show how popular attitudes about hold manufacturing are unreasonable and out of sync with other common attitudes and practices in rock climbing. In other words, I'll do what many consider anathema; namely, present a limited defense of hold manufacturing.

Practical Ethics

In practical ethics, as with most of philosophy, the sort of reasoning strategies employed are in one sense mundane but in another sense somewhat unique. The sense in which they are mundane is that good philosophy does not involve any sort of esoteric reasoning principles or bizarre formula. Good philosophy is just thinking very carefully and clearly about some topic in a coherent and critical manner. If there is a calculus for philosophy, it is just good old-fashioned deductive and non-deductive logic, combined with a willingness to follow the argument where it leads. The sense in which this is unique is that, as it turns out, people don't do this sort of thing very often. Instead, people regularly reason in a manner that is driven by biases, embrace beliefs incompatible with other things they believe, fail to think through their positions and what they entail, and often endorse arguments that are fallacious. While



practical ethics simply involves careful, coherent reasoning, careful, coherent reasoning is not something we do very well.

It is for this reason that practical ethics can be both helpful and yet often disturbing and iconoclastic. It often reveals how our ordinary views on a topic that we thought we understood are mistaken and indefensible. Thus, practical ethicists often play the role of social critics, challenging conventional assumptions and attitudes. A classic example of this is Peter Singer's now-famous argument about our moral obligations to people in dire circumstances. Singer asks us to judge the morality of a man who stands and watches a small child drown in a shallow pond, simply because wading out to save the child would ruin his expensive suit. Nearly everyone agrees the man's inaction is deeply immoral, even monstrous. This and a host of other cases reveal that people are deeply committed to the following moral principle: If it is within a person's ability to prevent something very bad from happening without sacrificing something of great significance, the person is morally obligated to do so. Given this, Singer argues that our own inaction toward those suffering in developing countries – say, the staggering 20,000 children who die daily from easily treatable ailments – is morally indefensible because it is incompatible with this moral principle. In short, when you choose to buy an iPod rather than giving the same money to Oxfam, your behavior is on a par with the man who watches the child drown.

Over the past forty years, Singer's argument has received considerable attention and there have been a variety of attempted rebuttals (some of which you may be considering right now). It is beyond the scope of this essay to survey this debate, except to note that it seems that none of the proposed rebuttals actually work, or at least work very well.² For our purposes, what *is* worth noting is the set of intellectual commitments on display in Singer's argument. One such commitment is to overall consistency and rationality in one's reasoning. If a person is committed to principle X, and if that person also believes or does something that is incompatible with principle X, then that person is irrational because her beliefs or actions do not form a coherent set. If someone holds an attitude that appears inconsistent with other things believed, then that person should offer a compelling justification for the attitude that removes the appearance of incoherency.

A second commitment in practical ethics is to follow the argument to where it logically leads, even if it takes one down a path that challenges longstanding views. What makes a good philosophical argument *interesting* is that, besides clearing away confusion, it also sometimes upsets the



apple-cart of consensus. Good philosophy in general, and good practical ethics in particular, is often distressing and even maddening because it demands we rethink strongly held beliefs. When confronted by cogent arguments that challenge their beliefs, people often fall back on various anti-intellectualisms: “You are being too philosophical!” or even “You are thinking about this too much!” If one is committed to intellectual responsibility, as one should be, this attitude won’t do. Here’s a tidbit of philosophy beta: if while arguing you find yourself digging in and attacking the process of reasoning itself, then you have just lost the argument.

Practical Ethics and Hold Manufacturing

Keeping these general points in mind, we can turn to rock climbing and ask if there are any controversial matters that lend themselves to this sort of critical analysis. I think there are, and that one such topic is hold manufacturing. What follows is what happens when someone who once had an anti-manufacturing attitude examines that attitude from the standpoint of a practical ethics for climbing.

To begin, it will help to reflect a bit on the nature of the hold manufacturing controversy. Unlike most controversies, the debate here is not fueled by two equally outspoken camps who publically disagree. With very few exceptions, virtually no one openly defends hold manufacturing. In the climbing literature there appears to be almost universal consensus that any form of manufacturing is very bad. Indeed, even in one of the very few defenses of manufacturing, a notorious 1990 essay by Duane Raleigh, the practice is described as “fundamentally terrible” and “degrading.”³ So given the apparent consensus that manufacturing is bad, in what sense is there a controversy? The controversy exists because despite the open expression of anti-manufacturing sentiments, hold manufacturing is nevertheless practiced in the development of many new routes. In other words, common *statements* are in conflict with common *actions*, resulting in a deep incongruity about the way some rock climbs are developed. This odd double standard is often reflected in popular descriptions of various routes. Take, for example, The Nose as a free climb. It is generally known that, besides the various pin scars that make certain cracks free-climbable, there is a section of the free variation – what is often described as the “Jardine Traverse” – where the holds used by all free climbers have been chiseled into the granite. So, on the one



hand, it is widely claimed that routes with manufactured holds are tainted and that manufacturing should never be done. And yet, at the same time, a route that is made possible with manufactured holds is widely regarded as one of the greatest free climbs in the world. And this is true of many routes throughout the globe, in many popular destinations. Routes like *Le Rose et le Vampire* at Buoux, *Bronx at Orgon*, or *The Crew* at Rifle, to name just a few, are generally viewed as classics or groundbreaking achievements, even though their existence depends, at least in part, on a style of route preparation that is openly deplored.

What should we make of this? Well, one possibility is that the manufacturing of holds is indeed always profoundly wrong, and yet we just choose to ignore this much of the time. But I think a more plausible diagnosis is that, despite the overt furor and indignation over manufacturing, we really aren't very clear about what, exactly, is wrong with it. Upon deeper reflection, the popular arguments against manufacturing are unconvincing and don't hold up to close scrutiny. In other words, the reason manufacturing still occurs in the preparation of many routes despite its widespread condemnation is because the condemnation itself is not properly justified. Indeed, if we pursue a practical ethics with regard to hold manufacturing – that is, if we commit ourselves to careful and consistent reasoning – we wind up with an analysis that suggests, at least in certain circumstances, manufacturing should be regarded as acceptable.

How would such an analysis go? Replicating a common strategy in practical ethics, we can develop an argument that has the following form: the first premise would express a general normative principle that most climbers believe about acceptable practices in route development. The second premise would claim that hold manufacturing is a legitimate application of this principle (and thus an anti-manufacturing attitude is in conflict with the accepted principle). The conclusion would be that manufacturing in some circumstances is an acceptable practice. Here is such an argument:

- (a) There are circumstances such that, in the preparation of a route, modifying the rock in order to make it climbable is acceptable.
- (b) The set of circumstances in which rock modification is acceptable sometimes includes the manufacturing of holds.
- (c) Therefore, the manufacturing of holds is sometimes acceptable.

While (a) might initially strike some as implausible, I think it is easy to show that it is a principle that most climbers embrace. The more



controversial premise is (b), so I will need to spend some time defending it. Of course, (c) follows directly from (a) and (b), so if you accept those two premises, you need to accept (c).

Before we evaluate premises (a) and (b) we need to clarify a couple of things. First, we should get a little clearer on what is meant by “hold manufacturing.” There is obviously a continuum of different rock alterations that have been described as hold manufacturing, including the unintended creation of holds with pitons, the reinforcing of existing holds with glue, the “comfortizing” of holds or aggressive cleaning, and of course the flat-out drilling of a hold in blank rock. Not much rides on how broad we make this continuum, so let’s stipulate that manufacturing includes deliberately drilling pockets with the intention of creating climbing holds.

Second, we also need to specify the sort of circumstances I have in mind when I claim that manufacturing is acceptable, as I certainly don’t believe it is defensible in every situation. Because so many climbers appear to have a zero-tolerance attitude against any sort of manufacturing, we can be fairly conservative while remaining revisionist. It is impossible to give a detailed description of all acceptable manufacturing scenarios, but fortunately we don’t need to. Instead, we can describe the prototypical scenario and later worry about how far it is acceptable to stray from that. Let’s say the archetype of acceptable manufacturing involves the preparation of an unclimbed sport route in a sport climbing area that has mostly high-quality climbable sections but also segments of blank rock with no climbable features. To link the climbable sections a limited number of holds are manufactured in the blank sections. That is the paradigmatic sort of practice the following argument is intended to defend. Now, let’s consider the premises.

The truth of (a) is easy to see once we consider general attitudes about the removal of loose rock by the person who prepares the route. When bolting a route it is almost universally agreed that it is acceptable to remove any loose blocks, crumbly or muddy rock, hollow flakes, fragile knobs, and so on. Indeed, the removal of loose rock is not only seen as ethically acceptable, but it is generally treated as obligatory. Route equippers who do not remove loose rock, especially on sport climbs, are often chastised for doing a poor job in preparing the route for others. Since the removal of loose rock is clearly an instance of modifying the rock in order to make it climbable, then modifying the rock in order to make it climbable is something that practically everyone finds acceptable.⁴



Premise (b), by contrast, is something that, as noted, most climbers explicitly and even vehemently reject. Why should anyone accept this premise? Why should anyone think that hold manufacturing is an acceptable form of rock modification?

We know that there is a climbing-specific normative principle embraced by most climbers and that principle says it is okay to modify the rock for the purpose of creating a climbable route. The removal of loose rock is one such type of modification, and (b) claims that the manufacturing of holds is another. Insofar as she wants to be intellectually responsible, someone who rejects (b) has the burden of presenting a compelling reason for thinking that hold manufacturing should *not* be treated as on a par with removing loose rock. In other words, the burden of proof is with those who embrace (a) but reject (b). Simply claiming it is wrong, and leaving it at that, won't do. Below are four popular reasons that are commonly given for rejecting (b). As we'll see, none of them are any good, despite their initial plausibility and despite the fact that they all stem from very reasonable concerns.

Reason 1: Rock Modification is Acceptable Only for Safety Reasons

Attitudes about the removal of loose rock stem in part from the potential danger loose rock presents, and from a broader moral principle that one should not place others in unnecessary risk. The route preparer has some obligation to prepare the route in a way that does not expose subsequent climbers to unexpected hazards, and that's why removing loose rock is acceptable. But this justification does not apply to the manufacturing of holds, and thus (it is claimed) (b) is false.

This initially seems like a good reason to treat hold manufacturing as different from removing loose rock. However, there are two points that undermine the relevance of safety. First, not all forms of acceptable removal involve material that is potentially dangerous. Included in (a) is a general attitude that route preparers can and even should remove poor quality, flaky or dirty rock that may not pose any real hazard but that can nevertheless make the climbing extremely unpleasant. A similar attitude applies to dirt, vegetation, lichen, and weeds that might be found on holds or in cracks. Route preparers are described as having done a bad job if they leave obviously loose material on the route, even if the loose



material can't really hurt anyone. Consequently, it is widely acknowledged that acceptable modification of the climbing terrain extends beyond safety concerns.

Second, it is important to remember the main choice confronting the route preparer is *not* between ignoring a potential hazard to others and removing that hazard. After all, if no route is established, the loose rock will pose no real danger to anyone. The real choice is between establishing a route (and doing whatever that requires) or simply walking away and establishing no such route. The upshot is that it really can't be claimed that modifying the rock in this way is *necessitated* by safety concerns, since there are always other options available (like only establishing routes on solid rock).

Reason 2: Hold Manufacturing Violates Important Environmental Commitments

Most climbers have a perfectly legitimate concern for preserving the natural environment, at least as much as possible. Manufacturing is often described as environmentally unsound because it alters and "disrespects" the rock. Thus, it should not be treated the same as removing loose rock.

To be sure, respect for the environment is a good thing. But we already accept that our use of the outdoors involves changing the environment in various ways. Trails to the cliffs, bolts in the rock, permanent anchors for rappelling, and the removal of loose rock and flora all involve a widely accepted modification of nature so that we can go climbing. It is hard to see why an environmentally driven concern for the rock would distinguish between the removal of loose rock and removal of solid rock to make something climbable. Moreover, it is hard to see why the removal of lichen, weeds, and grass, isn't *more* environmentally dubious than manufacturing, given that it involves the killing of a living part of nature (notice that, from an environmental perspective, the killing of a tree is considered far more serious than simply smashing a rock on the ground). Look at it this way. Geologists occasionally walk up to a cliff face with a hammer and knock off a few small samples for analysis. But no one seriously thinks that this kind of geological sampling is dubious on environmental grounds. Or think about just sitting at the cliff and picking up a rock and giving it a toss. Such an act certainly alters the natural landscape, but even the most committed environmentalists would hardly bat an eye.



There are some who agree that we sometimes need to alter nature for our purposes, but they insist that there is a continuum and that hold manufacturing is at the extreme end of that continuum, beyond an acceptable level of environmental impact. I have no problem with the idea that there is a continuum of environmental impact, and that there is a line on this continuum that we should not cross. What I reject is the proposed ordering that places manufacturing further down the continuum than other things we find acceptable. In comparison to trails, bolts, chain anchors, chalk, and the excavation of loose material, hold manufacturing on blank sections of rock is probably one of the *least* environmentally impactful aspects of rock climbing. You might be tempted to say that hold manufacturing *permanently* alters the rock, whereas things like chalk are only temporary. This is unrealistic thinking. Take a hike through Smith Rock, Eldorado Canyon, the Motherlode at the Red, or virtually any other popular cliff with darker rock, and from the trail you will see the very obvious chalk on the wall that has been there for the last twenty years, and will continue to be there for several generations to come. In truth, it is far easier to fill in a few drilled pockets than it is to wash all of this “temporary” chalk off the walls.

Reason 3: Hold Manufacturing Harms Future Generations of Good Climbers

Another argument that initially seems plausible is a forward-looking argument about the future of the sport. Here, it is claimed that by manufacturing holds to make a route possible today, preparers are robbing future generations of currently inconceivable natural lines that are in fact climbable. Had today’s 5.15bs been “chipped down” to mere 5.14s, the Sharmas and Ondras of the world would now have nothing to project.

A number of considerations undermine this reasoning. First, in our description of acceptable manufacturing, we stipulated that proper modification only applies to truly unclimbable rock, such that no future climber could ever climb it. In discussions of this topic, there is a lot of fretting about discerning what is and isn’t unclimbable rock. Statements like “Who’s to say what is unclimbable?!” and “No one really knows what will be possible in the future!” are commonplace. Nonsense. While it is indeed true that people are climbing things today that were once described by some as unclimbable, it doesn’t follow that unclimbable rock is impossible



to detect. Unless you are completely ignorant of physics and human physiology, it is fairly easy to recognize sections of rock where you can know with certainty that it will never be climbed in its current form. If you think it *is* impossible to recognize truly unclimbable rock, let's make a deal. I'll go pick out a 20-foot section of rock on a cliff somewhere and declare it unclimbable. If, in the next 15 years, it is actually climbed in its current form, then I will pay you \$10,000. If it is not climbed in that form, then you must pay me \$10,000. Any takers?

A stronger response to this concern is to recognize that a general acceptance of hold manufacturing will significantly help, rather than hinder, future generations of climbers. The reason is this: at any given point in time, including future points in time, there is a lot more unclimbable rock in the world than just barely climbable rock. Pick whatever grade you think might be the cutting edge for some future generation. 5.17d? Okay, there is a great, great deal more rock out there in the harder-than-5.17d range that could be converted into a 5.17d than there is rock that is naturally 5.17d. So, if your concern is that the future 5.17d climber won't have enough routes to do, then you should endorse a pro-manufacturing attitude. Note, this point applies to *any* future grade and *any* future generation. While I'm not suggesting that this is an especially good argument *for* manufacturing (though some may come to see it that way), I am suggesting that the concern-for-future-climbers argument is a uniquely bad argument for opposing all hold manufacturing.

Finally, this criticism of rock modification is partly grounded in the assumption that it is always done to make the climbing easier – to bring the rock “down” to a lesser climber's ability. In truth, there are lots of climbs where holds have been chipped *off* the route to make it harder. Here again, rock modification beyond the removal of loose material actually benefits, rather than hinders, the very top climbers.

Reason 4: This is a Slippery Slope; Any Acceptance of Manufacturing Will Lead to Abuses

A final argument against manufacturing (and that is also grounded in legitimate concerns) stems from the idea that any sort of tolerance of manufacturing can lead to all sorts of abuse: the destruction of great natural but really hard lines, or the modification of existing routes.



The problem with this argument is that it has nothing to do with the point at issue. Of course, most things done badly are bad. But that has nothing to do with the propriety of the practice done responsibly. Note that few people think the existence of bad bolting entails the need to abolish all bolting. Route preparers who engage in irresponsible and gratuitous manufacturing await the same condemnation as those who engage in irresponsible and gratuitous bolting. Because my argument is a defense of the limited sort of manufacturing described above, the possibility of other kinds of manufacturing is largely irrelevant. Notice, by the way, that irresponsible manufacturing sometimes occurs *now*; our current condemnation of manufacturing hasn't prevented it from happening.

Conclusion

The upshot of this analysis should be fairly clear. The standard arguments (at least those I'm familiar with) for rejecting (b) are, upon reflection, not very compelling and fail to support a case against manufacturing. The anti-manufacturing attitude does not accord with other things most rock climbers believe, like the acceptability of modifying the rock to make it climbable. Given that those latter beliefs are deeply entrenched, the former attitude should be abandoned. Our conclusion (c), the claim that the manufacturing of holds is sometimes acceptable, is the sensible view to hold. Let me wrap up by considering a couple of other points.

First, isn't there *some* sense in which a non-natural route (with manufactured holds) is inferior to a completely natural route? Yes, I think that, all else being equal, a purely natural climb is usually better and more appealing than one with manufactured holds. In fact, in most outdoor pursuits, the more that is provided by nature, the better. As with snowboard jumps, kayak runs, mountain-bike paths, and so on, a naturally occurring medium in rock climbing is superior to one that is contrived and human made. But it is important to understand the sense in which it is superior. A route with manufactured holds is on a par with one that has, say, poorly positioned bolts or awkward moves or wildly inconsistent difficulties. In all such cases, we do not think the route preparer was being *unethical* to establish such a route. We just think that, all things considered, the route has some features that detract from its overall quality. This is the attitude that should be applied to routes with reasonably manufactured holds.



My second and final point is this. There are no doubt many of you who are reading this and getting increasingly angry about my defense of manufacturing. You may be thinking to yourself “some yahoo is going to use this as a license for chipping holds on something he is developing.” But if you reflexively think that manufacturing is always a bad thing, then you haven’t been paying attention. Given the deficiencies of the anti-manufacturing outlook, you should instead be considering the possibility that your outlook is more of a bias without proper support. Indeed, given how often an anti-manufacturing attitude is defended by appeals to nothing other than tradition, or that “it just *is* wrong” (with heavy foot stomping), it resembles other forms of dogmatic thinking. To help shift your perspective, consider this: if you are a serious climber who climbs relatively hard sport routes, then there is a very good chance that at some point you have done a route with at least a few manufactured holds. Moreover, there is also a good chance that despite the manufacturing, climbing the route proved to be a gratifying and rewarding experience. Now what should the appropriate attitude be toward the route preparer, who, after all, sacrificed considerable time, money, and energy so that you could have that experience? Does it really make sense to view the preparer with condemnation and scorn? That seems unappreciative at best, and at worst downright incoherent. Or is it instead more sensible to recognize that it is sometimes acceptable for preparers to modify the rock and create holds so that people can have the sort of experience you had? The latter position, I have come to appreciate, seems far more reasonable and philosophically defensible.

NOTES

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- 2 Singer’s original essay is “Famine, Affluence and Morality,” *Philosophy and Public Affairs* 1, 1 (1972): 229–43. A more recent discussion of this issue can be found in his *The Life You Can Save* (New York: Random House, 2009). For criticism of Singer’s views, see D. Jamieson (ed.) *Singer and His Critics* (Oxford: Wiley-Blackwell, 1999).
- 3 D. Raleigh, “Start Making Sense,” *Climbing* 122 (1990): 136. The letters that appeared in subsequent issues of *Climbing* in response to this essay nicely

